EFFECT OF Momordica Charantia EXTRACT ON VINBLASTINE ACCUMULATION AND EFFLUX ACROSS P-GLYCOPROTEIN IN HUMAN CERVICAL CARCINOMA CELLS

KOMSAK PINTHA

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF SCIENCE

IN BIOCHEMISTRY

ลิขสิทธิมหาวิทยาลัยเชียงใหม่

by Chiang Mai Universi

GRADUATE SCHOOL

CHIANG MAI UNIVERSITY

SEPTEMBER 2003

EFFECT OF Momordica Charantia EXTRACT ON VINBLASTINE ACCUMULATION AND EFFLUX ACROSS P-GLYCOPROTEIN IN HUMAN CERVICAL CARCINOMA CELLS

KOMSAK PINTHA

THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN BIOCHEMISTRY

EXAMINING COMMITTEE

<u></u>	Pornugarm	Limtrabul.	CHAIRPERS	SON
	Assoc. Prof. Dr. Port			
	Drawart Sin	ntan	MEMBER	
A	Asst. Prof. Dr. Orana	rt Suntornwat		
	leksana Ma	ekenkaio keyoon	MEMBER	2.21
		sana Makornkewkey		Ulnu
Copyrich	dompun h	Thanswaran_	MEMBER	
All	Dr. Udomphan Khar	nsuwan		

4 September 2003

© Copyright by the Graduate School, Chiang Mai University

ACKNOWLEDGEMENTS

I wish to express my deepest gratitude and appreciation to Associate Professor Dr. Porn-ngarm Limtrakul, thesis advisor for her special efforts, valuable suggestion and excellent encouragement. This thesis would not have been a complete success without the assistance from my co-advisors, Assitant Professor Dr. Oranart Suntornwat, Associate Professor Dr. Luksana Makornkawkeyoon and Dr. Udomphan Khansuwan. In addition, I am grateful to all the wonderful staff members in the Department of Biochemistry, Faculty of Medicine, Chiang Mai University who always provided me with invaluable advice and assistance when needed.

I am deeply indebted to Professor Dr. Michael M. Gottesman and Dr. Suresh V. Ambudkar of The National Cancer Institute, Bethesda, Maryland, United States of America, who provided me with invaluable KB-3-1, KB-V-1 cells and some chemicals used in this study.

I would like to express gratitude to Professor Dr. Floyd W. Dunn for his kind advice on the writing of this thesis.

I also extend my sincere thanks to Dr. Songyot Anuchapreeda, Dr. Suwiwek Lipigorngoson and Dr. Chadarat Duangrat for their kind suggestion and practical training.

I am also grateful to Miss Orawan Khantamat, Mr. Wittaya Chaiwangyen,
Miss Pilaiporn Tipprapant, Miss Warunee Kumsaiyai, Mr. Kiattisak Suwan and
Mr. Suwatsin Kittikunnatam for their kind assistance.

I would like to thank my dear friends and all dear people in the Department of Biochemistry for their help and warm friendship. Finally, I am grateful to my grandparents, parents and brother for their wonderful inspiration, useful guidance and emotional assistance.

Komsak Pintha